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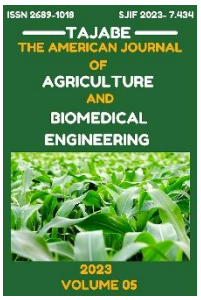

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Research Article

THE EFFECT OF BIOSTIMULATORS ON THE PRODUCTIVITY OF PINK CATARANTHUS (CATARANTHUS ROSEA L.) PLANT

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ABSTRACT

pink catarantus in saline soil conditions of the Republic of Karakalpakstan (CATARANTHUS ROSEA L.) the application of humus, Isabion, Master Power, biostimulants from various biostimulants to the plant consists in the development of Agrotechnology.

KEYWORDS

Humus, Izabion, Master Power, biostimulant, seeds, root, crop, germination.

INTRODUCTION

Relevance of the subject: Natural growing medicinal plants and raw product reserves have increased, and it is urgent to protect them, study their bioecological properties, develop scientifically based proposals for the proper use and reproduction of raw material product reserves. is one of the issues. [2, 5, 6]. Studying the biology of the pink cataranthus (CATARANTHUS ROSEA L.) plant in the climatic conditions of Karakalpakstan, developing proposals for its cultivation is of necessary scientific importance.

Pursuant to the decision of the President of the Republic of Uzbekistan dated April 10, 2020 "On measures for the protection, cultivation, processing and rational use of available resources of medicinal plants growing in the wild" It shows the need to create a favorable environment for the further development

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of plant cultivation and processing, to increase the export activity of the sector, as well as to integrate knowledge, science and production processes.

The purpose of the research is to develop the agrotechnology of applying various biostimulants to the pink catharanthus (CATARANTHUS ROSEA L.) plant in the saline soil conditions of the Republic of Karakalpakstan.

Tasks of the research:

Determining the effect of Humus, Izabion, Master Power, biostimulants on the germination of pink cataranthus (CATARANTHUS ROSEA L.) seeds;

Studying the effect of soil on agrochemical and agrophysical properties and equal volume of salts;

Studying the effect of biostimulants on the growth and development of pink catharanthus (CATARANTHUS ROSEA L.) seeds;

Determining the economic results of growth and development of biostimulants in the cultivation of pink catharanthus (CATARANTHUS ROSEA L.) seeds.

As the object of the study, moderately saline meadow-alluvial soil in the northern regions of the Republic of Karakalpakstan, seeds of the pink catharanthus plant were taken as biostimulants.

The subject of the research is the productivity of pink catharanthus (CATARANTHUS ROSEA L.) in field conditions and the effect of biostimulants on it, the growth and development of the plant, the agrochemical and agrophysical properties of the soil, which are the vegetative and generative organs of the plant.

Research methods. Laboratory and field experiments are carried out according to approved methods. Conducting field experiments, biometric measurements and their analysis "Methods of conducting field experiments" (UzPITI, Tashkent, 2007); "Methods of agrochemical, agrophysical, and microbiological research in irrigation areas", "Methodology of economic efficiency in the use of agricultural and agricultural results, scientific research and experimental design work, new technical, inventive and rationalization research" (B.A. Baranov) and experience Microsoft Word and Excel computer programs are used for the mathematical and statistical analysis of data based on the methods of B.A. Dospehov.

The results of the research are grown in the form of seeds and sprouts based on the Pink catharanthus plant. Seedlings were grown in greenhouses in mid-February. When the air temperature is 18-20 CO mainly from the seed. In the climate of Karakalpakstan, it is sown on the 10th day of May. After 20-25 days, sprouts begin to emerge from the seeds. The growth of the shoots was very slow in the first days, and it accelerated a little as the days warmed up. Germination of pink catharanthus seeds accelerates as the temperature increases. Plant seeds do not germinate at low temperatures.

Since all the time is comfortable in the laboratory, the productivity of the seed is somewhat lower than in the field. Nevertheless, the laboratory-determined seed germination accurately describes its planting qualities. Germination of seeds is determined in a thermostat or in a clean room set aside for this purpose and maintained at the required temperature.

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Table 1

Bluishness of the seeds of the pink catharanthus plant

Varyantlar, harorat	Urug' soni	Ekilgan kuni	Ko'karib chiqkan kuni, soni	To'liq ko'karib chiqqan kuni	To'liq ko'karib chiqqan soni	Ko'karuvchanligi % hisobida
1-quruq	100	07.12.2021	13.12.2021	20.12.2021	87	85-90%
2-quruq	100	07.12.2021	13.12.2021	20.12.2021	82	
3-quruq	100	07.12.2021	13.12.2021	20.12.2021	89	
4-quruq	100	07.12.2021	13.12.2021	20.12.2021	84	

Germination of seeds is studied at different temperatures, that is, in variants. When determining the fertility of medicinal plants, 100 seeds are taken and returned 4 times for each analysis. Each time, the initial and final fertility of seeds in 4 samples is determined separately, and then the average is recorded in %. If the germination of the seed is determined on filter paper, a Petri dish is taken. After the filter paper is cut to fit the Petri dish, it is soaked in water and 100 seeds are placed. A label is attached to each Petri dish and the sample number is written on it. Petri dishes are periodically moistened with filter paper. It is advisable to grow seeds in a warm place. Water is sprinkled every day so that it does not dry up, it is counted and written down. If there is initial seed germination, after 10 days it is taken separately for each sample. When determining the initial germination, normally germinated seeds and rotten seeds are removed. When determining the main fertility of the seed, all germinated and ungerminated seeds are counted and divided into groups. The seed germination of each 4 samples is averaged and divided by 4 to determine the average %.

Table 1.2

Bluishness of the pink catharanthus plant

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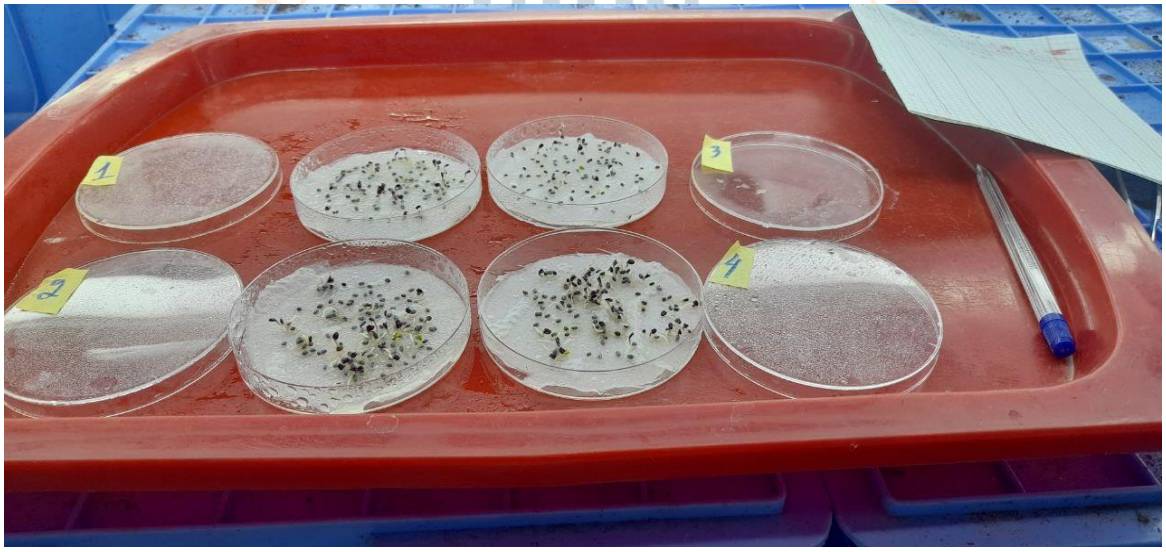
High-quality medicinal plants can be obtained only from the seeds of the pure variety, the damaged, unripe seeds do not have the ability to live and must be bred. Impure mixtures should not be used. The seeds to be planted should have high indicators of germination and purity.

Figure 1.3



Determining the bluishness of the seeds of the pink catharanthus plant in laboratory conditions

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